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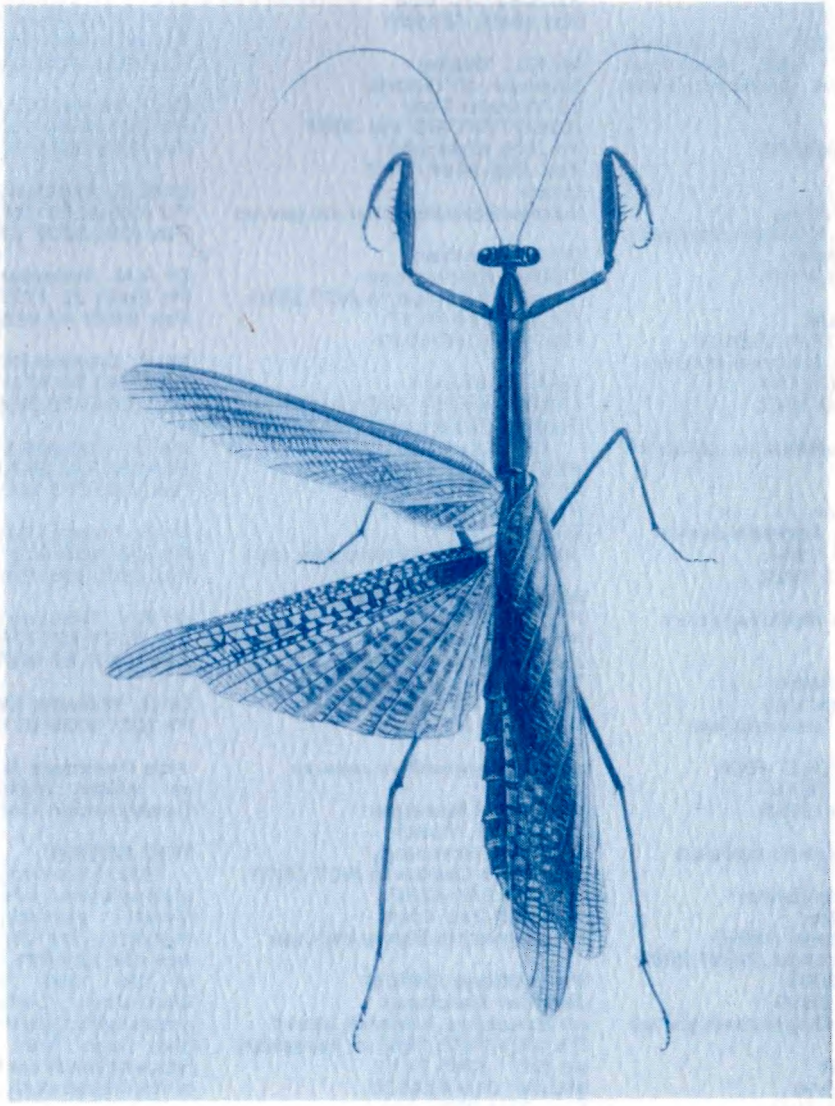

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THE COVER

The cover depicts *Tenodera australasiae*, one of the best known common Australian mantids. The illustration, which won the Student Colour section of the 1996 AES Scientific Illustration Competition, was prepared by **Sharyn Wragg** who also won first prize in the Student Black and White section of the same competition.

MYRMECIA

CONTENTS

Executive Report 2
Conservation Committee Report 4
Regional News
Australian Capital Territory 4
New South Wales 5
Northern Territory 5
Queensland 7
South Australia 11
Victoria 12
Western Australia 14
FASTS News 16
Electronic News 20
Coming Events 21
New Publications 25
Notices 25
Membership Appl. Form . . inside back cover

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NOTICE

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COPY DEADLINE FOR NEXT ISSUE

Material for publication in the May 1997 issue of *Myrmecia* should be in the hands of the Editor at the address below by **Thursday 24 April 1997**. Submission to fletchm@agric.nsw.gov.au is preferred but submission on IBM-compatible floppy disk in a major word processing format, or by fax, letter or carrier pigeon to the address below is acceptable.

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NEW SOCIETY PROMOTIONS OFFICER

The Executive have announced the appointment of **Jennifer Marohasy** to the position of Society Promotions Officer (assistant Business Manager).

Jennifer worked for the Qld Dept. of Lands (Alan Fletcher Research Station) for 12 years but was based mostly overseas looking for weed biocontrol agents for rubbervine and prickly acacia in Africa. She resigned early in 1996 and is currently completing her PhD on an APA stipend through the UQ Entomology Department.

Jennifer can be contacted by:
Email: jenifer@powerup.com.au (note only one 'n'!)
Phone: 07 33793261 or 019 624833
or message at 07 33652271
Fax: 07 33793261 (when her computer is on)
Letters: c/o the Society Executive Address given on the inside front cover of *Myrmecia*.

EXECUTIVE REPORT

MEETINGS

The Core Executive met on 21 November and 19 December 1996, and on 13 January 1997.

NEW MEMBERS

Elected 19 December 1996

Elected as Full Member:

Marcus J. MATTHEWS, Division of Entomology, CSIRO Canberra - Marcus is a new Regional Councillor for the ACT.

Richard V. SEQUEIRA, QDPI Emerald, Qld - Welcome to Australia

Tianyun SU, Dept Entomology, UC Riverside, Ca

Elected 13 January 1997

Elected as Full Member:

Modika PERERA, 49 Southgate Road, Langford, WA 6147

D. DRIJONO, Dept Plant Pests & Diseases, Faculty of Agriculture, Bogor Agricultural University, Bogor 16144, Indonesia

Elected as Student Member:

Olivia KVEDARAS, Robb College, University of New England, Armidale, NSW 2351

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Ms M COUSINEAU, 77 Weekes Rd, Moggill Qld

Mr Peter DAVIS, c/ Entomology Branch Agriculture WA, Baron Hay Ct. SOUTH PERTH WA

Dr Murray FLETCHER, Orange Agricultural Institute, Forest Rd, ORANGE NSW

Dr Margaret EVANS, Mallee Research Station PO Box 31 WALPEUP VIC

Dr Roger FARROW, "Tilembeya" PMB 881, URILA via Queanbeyan NSW

Mr Stephen FRANCES, Australian Army Malaria Institute, Gallipoli Barracks, Milpo, Engorra, Qld

Mr Peter GILLESPIE, Orange Agricultural Institute, Forest Rd, ORANGE NSW

Mr Michael GIBIAN, 13 Raymond Ave Northmead NSW

Dr Graeme HAMILTON, Australian Plague Locust Commission, GPO Box 858, CANBERRA ACT

Ms Lynda HAMILTON, 37A Gratwick St, Port Headland WA

Mr Bijan HATAMI, Dept of Crop Protection College of Agriculture, Isfahan University of Technology, Isfahan, IRAN

Mr Brian HETERICK, c/ 80 Allen St, East Fremantle WA

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Ms Danuta KNIHINICKI, Orange Agricultural Institute, Forest Road, ORANGE NSW

Dr Robyn JACKSON, c/- 2 Hathaway Crt, KELSO QLD

Dr Garry LEVOT, NSW Agriculture, EMAI, PMB 8, Camden NSW

Dr Glynn MAYNARD, 16 McCawley St, Watson, CANBERRA, ACT

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Mr E SOLEYMAN-NEZHADIYAN, Dept of Crop Protection, College of Agriculture, University of Ahraz, AHRAZ

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Mr Shaun WINTERTON, Dept of Entomology, University of Queensland, St Lucia, Qld

Resignations from membership (1996)
(received with regret)

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Mr GJ BOWMAN, formerly of East Ballina
Mr A. KENNETT, formerly of Maroochydore
Ms HS DUNGEY, formerly of Hobart
Dr AC RATH, formerly of Worcester MA, USA
Miss CL DAY
Mr AGL WILSON
Dr CE HOELSCHER
Mr V PETTIGROVE
Mr MA COLLER
Dr DL EMERY
Dr J WOODWARD
Mr PD DRIVER
Dr BC CHESSMANN

Deceased
Fr BB LOWERY, formerly of Latrobe, Tas

FROM MINUTES OF THE CORE EXECUTIVE

Five items of major interest to the membership have been discussed over the last few Core Executive Meetings: new members of the Council, proposed revisions to the journal format and editorial board, increased promotion of the Society, a joint AGM-AAEC meeting in Brisbane in 1998, and the 1997 AGM in Victoria.

New Council Members and Executive Appointments

Assistant Business Manager (aka Promotions Officer) - **Jennifer MAROHASY**
Regional Councillor Far North Queensland - **Jamie SEYMOUR**
Regional Councillor Canberra (CSIRO) - **Marcus MATTHEWS**

A major concern of the Executive has been the decline in Society membership, and we have undertaken two major thrusts to attempt to reverse the trend: 1) an investigation of what can be done to improve the content and raise the profile of the Journal (unfortunately known as 'The Red Rag' to its detractors) and 2) increased promotion of the Society. Myron has surveyed a range of potential members of a new, expanded Editorial Board for the JAE, and most people contacted have been willing to serve. Roger and Peter have had discussion with publishers to determine if it would be to the Society's advantage to form an association with a professional publisher (Blackwell's seems most reasonable so far). We expect to make a proposal to the AGM in Victoria this September. On the promotional front, **Jennifer Marohasy** has succeeded in placing Murray Upton's book in a number of bookshops around Brisbane and in contacting many who teach entomology, but who have neglected to make their students aware of Methods for Collecting, Preserving and Studying Insects. Also, Jennifer and Roger have organised a letter to send to students in Australia who are engaged in entomological research. A surprisingly high percentage of these students are not members of the Society. **Myron Zalucki** is in charge of organising the Sixth Australasian Applied Entomology Research Conference in 1998. The AAERC hasn't been held for a half dozen years, but in 1998 it's on, and we think it would be best if

we held our AGM in conjunction with it. The main concern that has been raised so far is that we avoid having the AGM swamped with applied papers, and make sure that other research interests are maintained. An additional problem to think about in the coming years is that the new Systematic Society will also be holding their meetings and may draw away presentations from the AGM. Not a problem this year, since Nancy, Robin, Mark and their coworkers seem to have the 1997 Victoria AGM well in hand.

David WALTER
Honorary Secretary

CONSERVATION COMMITTEE REPORT

A new Threatened Species Scientific Committee has just been constituted by the Western Australian Government. The Committee currently has eight members, three of whom are primarily botanists and three are vertebrate zoologists.The other two positions are filled by myself and Society member **Mark Harvey,** so invertebrate interests should be adequately represented on this Committee.

Jonathan Majer and **Penny Greenslade**, the current and previous convenors of the Conservation Committee, attended the recent workshop on conservation of temperate woodlands, which was held in Braidwood, NSW. We were able to make considerable input on the importance of invertebrates in these threatened ecosystems and will be preparing a series of invertebrate-orientated chapters for the book which will result from this Workshop.

Jonathan MAJER
Convenor
Conservation Committee

REGIONAL NEWS

AUSTRALIAN CAPITAL TERRITORY

CSIRO Entomology

David Rentz writes that the orthopteroid section of the ANIC is coping with the disintegration of the white caps on the vials of the alcohol collection by using inordinate amounts of alcohol in the replacement process. He expects to be visited by someone in the Federal Government wondering where the "party" is.

Much time is being spent writing captions, dubbing sounds, and obtaining interesting material for the World Version of the CD-ROM "Insects: A World of Diversity". **Edward S. Ross**, Curator Emeritus, California Academy of Sciences, is the main source of the new material although there are at least 10 other contributors. Edward will be in Australia during February to retrieve his more than 10 kg of slides and to do some collecting and additional photography.

The back has been broken on the Listroscelinae, the largest subfamily to be included in Volume 3 of the Monograph of Australian Tettigoniidae. Some of the species described in the genus *Terpandrus* are the largest of the Australian saltatorial Orthoptera and it is amazing that such creatures could have gone unnoticed until now.

Colleagues of the late **Norman Tindale** at the Australian Institute of Aboriginal and Torres Strait Islander Studies, an anthropologist as well as entomologist, were pleased to see **Dr Luise Hercus**'s name enshrined with a cricket named in her honour. Luise has spent a lifetime learning and studying aboriginal languages and is a contributor to the Macquarie Aboriginal Words dictionary--a very good source for names, if you are a taxonomist.

The acarology laboratory in CSIRO Entomology, Canberra welcomed back **Tingkui Qin** as visiting scientist for 3 months, during which he will continue work on his catalogue of the New Zealand Prostigmata, extend his previous work on the mite family Penthalodidae, and a related but undescribed, new family. The lab also had short visits from **John Macdonald** and **Danuta Knihinicki** from BCRI, Rydalmere, and from a team of arachnologists led by **Norm Platnick** and **Robert Raven**.

Prof. **Jeremy McNeil** from the Faculty of Science & Genetics, University Laval, Quebec, Canada spent 15 days in Australia visiting the tropical Horticulture group in Brisbane to discuss studies on migration by fruit piericng moths. He was accompanied by his wife, **Johanne Delisle** from the Canadian Forestry Service. Both gave seminars at Long Pocket - Jeremy on moth migration and Johanne on the reproductive biology of a tortricid moth. Jeremy and Johanne travelled north with **Don Sands** to visit the moth breeding sites near Proserpine, Mission Beach, Cairns and Atherton.

Glynn MAYNARD
Regional Councillor

NEW SOUTH WALES

Orange Agricultural Institute

Until recently, "ARVC, Orange"

The population of entomologists at the Centre has trebled following the arrival of a contingent of deportees from the former Biological and Chemical Research Institute at Rydalmere. First to arrive (mid January) was **Murray Fletcher** who was told that he was the 50th professional officer on the staff at the Institute. **John Macdonald** followed in early February along with **Peter Gillespie, Danuta Knihinicki** and **Merydyn Davison**, who will continue providing an enquiry service to the Sydney Metropolitan public and all her other clients via the number (1800 675821). **Jasbir Mann** has now joined them and will continue on Murray's ABRS-funded project on Typhlocybinae. One casualty of the move was **Alan Westcott** who is now at the Fruit Fly Unit at Camden. The original NSW Agriculture entomology staffer at Orange, **Graham Thwaite**, welcomes the Taxonomy Team and hopes they quickly settle in to the ways of the bush. All have applied to be provided with broad-brimmed hats and elastic sided boots and are learning to speak m o r e s l o w l y .

Other BCRI entomologists designated for relocation to Orange have all made other arrangements. **Graham Goodyer** left early in 1996 to follow his own interests, **Graeme Baker** has been offered Honorary Research Fellow status at the Australian Museum to continue his work on nematode parasites of Orthoptera and **Elmo Xavier** has taken a position working with veterinary researchers at EMAI, Camden. We wish them well in their new career paths.

Murray Fletcher and **Peter Gillespie** are in the final throes of organisation for the 9th International Auchenorrhyncha Congress to be held in Sydney in February. After a worryingly slow initial rate of registrations, a final flurry has brought the total number of registrations to more than 60 representing 19 nations and the meeting now promises to be an excellent one. The conference will be held at the North Head Quarantine Station Conference Centre with the Conference Dinner to be held on a cruise ship touring Sydney Harbour. Special features will include a plenary address on the leafhoppers and planthoppers of rice by Dr **George Rothschild**, Director General of IRRI, a presentation on the origins of the unique Australian flora and fauna by Dr **Peter Valder** and a conference dedication to Dr **John W. Evans** by his son Dr **Jeremy Evans**.

Peter Gillespie has lost most of what was left of his hair in the process of relocating while having to maintain an uninterrupted monitoring service for Papaya Fruit Fly (PFF) and Western Flower Thrips (WFT). Peter managed to get away to the Whitefly Identification Course run at the ANIC in December during the week his lab at Rydalmere was being packed into boxes ready for moving. **Colin Grinyer** (who was our Public Sector Trainee Laboratory Assistant during 1996) and **Linda Semeraro**, who was doing the WFT work, both chose to move to Orange in order to stay employed on this monitoring program and have been joined by local recruits **Matthew Kerr, Adrienne Penrose** and **Anna Nikandrow**.

Forcing a relocation in mid summer, when biology is at its most active, was a fairly silly concept.

Orange Agricultural College, The University of Sydney

Geoff Gurr hosted a visit to the College by **A. Raman** (noted insect-induced gall authority) formerly of University of Madras but now based in Dubbo. **Lindsay Baggen** attended NSW Agriculture's Potato Field Day at Cowra in January to talk about biological control of potato moth.

Zamir Hossain is still smiling having received a Christmas present of a University of Sydney Scholarship to continue his research into lucerne pest management.

Geoff GURR
Regional Councillor

NORTHERN TERRITORY

Thrips and whitefly did not have a good Christmas around the Top End this year. **Jon Martin** of the Natural History Museum, and **Laurence Mound** of ANIC, ably abetted by **Alice Wells** of ABRS, sought to beat the deluge and to drown every last individual of these groups in alcohol instead, and then transport them to a more secure life elsewhere. Jon was nearing the end of four weeks in Australia, during which he demonstrated that the aleyrodid fauna of this country is far larger than the few records indicate. Laurence was looking, successfully once again, for thrips faunal connections with Indonesia. Alice, who unlike some elderly specialists on this group, can actually see thrips in the field, worked hard to

render out-of-date the Catalogue of Australian Thysanoptera that she helped to publish such a short time ago, by finding several genera previously unrecorded.

Department of Primary Industries and Fisheries
Weeds Biocontrol Branch

On one of her regular trips to Darwin for the 'Mimosa Steering Committee' **Wendy Forno** dropped in at the Biocontrol Section to discuss with **Grant Flanagan** and **Bertie Hennecke** the *Mimosa pigra* project. In the wake of **Colin** Wilson's departure, Grant **Flanagan** has been appointed for six months as leader of not only the biocontrol team but also the survey and control team of the weeds branch. **Andrea Wilson** has directed her career from mosquitoes into biological control of weeds and joined the biocontrol team in October. Bertie, kind fellow that he is, offered to share his office with her and now all you hear coming out of that office is how they accuse each other of eating each others' chocolates and stealing each others' pens.

The wet-season has moved into the top end and that means all hands on deck for rearing, releasing and monitoring of biological control agents. **Kate Richardson, Nicole Ostermeyer** and **Bert Lukitsch** from the NT University are assisting **Merl Paskins, Lyn Burrell** and **Bruce Hitchins** of the biocontrol team in this matter especially with the redistribution of the sesiid stem borer *Carmenta mimosa*. Unfortunately cyclone Rachel delayed proposed field trips but the spare-time was used to completed the final work at the new biocontrol shadehouse and the move back into the shadehouse.

Entomology Branch

Stuart Smith and 2 American scientists, **Jack Armstrong** and **Eric Jang,** conducted an assessment of the control of papaya fruit fly in Cairns in November. Apart from a brief visit from **Laurence Mound** and **Alice Wells,** things have been pretty quiet over Christmas.

Northern Australia Quarantine Strategy Branch

After some speculation over the future of the NAQS veterinary position in NT, our numbers are on the increase with the appointment of a plant pathologist. **Robin Eichner** will be with us for at least 12 months and is looking forward to seeing some of the NT coastline. In the meantime both he and **Glenn Bellis** are squatting in borrowed offices waiting for more permanent accommodation.

Territory Health Services
Medical Entomology Branch

The Branch has been extremely busy over December-January with large hatches of salt marsh mosquitoes near urban areas and the large coastal marshes. Excellent control of the hatches has been achieved in the general Darwin area, in cooperation with the Darwin City Council and the Parks and Wildlife Commission. This follows on from last year's control efforts, when record low numbers of Ross River virus cases were achieved in the NT while other States were having relatively high numbers. With the flooding rains of the wet season, the coastal swamps have ceased to be sources of salt marsh mosquitoes and the Branch is now surveying for the common banded mosquito.

Three of the Branch staff, **Peter Whelan, Brian Montgomery,** and **Gwenda Hayes,** together with PHD student **Martin Shivas**, attended the November arbovirus and mosquito control conference in the Gold Coast. Four papers were presented involving Branch activities, including Ross River transmission, biting midge survey results and arbovirus isolation from mosquitoes over a ten year period. Significant results included the characterisation of the breeding sites of *Culicoides ornatus*, and the first isolation of Bluetongue virus from mosquitoes in Australia.

Martin Shivas has now taken a break in India in preparation for his final year of the *Culicoides* investigations in Darwin Harbour. **Gwenda Hayes** will also be taking a well earned break from preparing papers for publication and organising the delayed, but soon to be completed, Branch report. She has been awarded a Departmental scholarship to carry out part of her studies for a BSc. Another branch member, **Ross Nowland** will also be taking off in May to get married and we all hope he will come back. **Brian Montgomery** has been heavily involved with the increasing number of developmental applications and comments and is looking forward to the day when developers don't want to develop swamp land.

Ross, together with **Barbara Love** and **Jane Carter** have been busy coping with the marked increase in vector surveys and control operations, as well as identifying all the influx of mosquitoes sent in under the NT wide mosquito surveillance

program. Jane is a relative newcomer but has already become proficient in mosquito identification and field surveys and is proving to be an invaluable team member.

Peter Whelan has been busy achieving a record amount of free publicity over the "quiet news" period of Christmas, and is now battling the budget and engineering preparations for the approaching dry season. He will assist **Tony Wright** and others in the Broome mosquito surveillance and control course in early March.

CSIRO Tropical Ecosystems Research Centre

Tracey Churchill has been processing spider material from the July invertebrate survey down the NATT (Northern Australian Tropical Transect). Getting lots of interesting and new taxa, including families that she had not previously seen and that had not been recorded here before. **Jenni Webber** has been coming in one day a week to process material from local study sites at a very efficient pace. Tracey had the pleasure of a visit from international arachnological colleagues **Norman Platnick, Vladimir Ovtsharenko** and **Kefyn Catley** from the American Museum of Natural History New York and **Robert Raven** (Qld Museum) who are all revising several families of common and diverse ground dwelling spiders. It seems that there is a greater level of richness in these groups than I realised here and am relieved that they are working on their taxonomy. Jenni and Tracey took them "down the track" to our homes at Humpty Doo where Norman was excited at collecting some of his favourites live (for the first time) from under the bark of wooly butt trees. They were then blessed with a full on tropical downpour after sweating it out all afternoon (they had been on an all climate tour of Australia by then). They also bragged about a new collecting technique - the vibrating car sampling method - which didn't perform here. Apparently they had had amazing success down south by leaving a low revving 4WD next to the bush and leaf litter with "hundreds" seemingly attracted to the car. We discussed the potential reasons and I secretly decided that it may have been related to the beer factor - that you have to drink a lot more of the NT variety for it to work !!! ???

Environmental Research Institute of the Supervising Scientist (ERISS)

Given that in recent times ERISS hasn't contributed to *Myrmecia* regional news, I'll start with a brief overview of who we are. ERISS is located just ouside the town of Jabiru in Kakadu NP and was originally set up to oversee environmental practice of Ranger Uranium Mine. In recent years our terms of reference have expanded to include research into the ecology of wetlands in the Wet Dry tropics. At the moment our entomological work is restricted to aquatic life stages which are used predominantly as a monitoring tool.

The recent big wet season has been good news for our ANU Honours student **Ben Gunn** who is doing a study on sources and rates of invertebrate colonisation of the Magela floodplain. Despite some major logistical hurdles including avoiding nesting crocodiles, site access when roads are flooded and trying to sample among impenetrable Para grass, we have collected some samples from the newly inundated floodplain and there are signs of life.

One of **Ruth O'Connor's** major tasks at the moment is trying to write up 2 years worth of data on the invertebrate fauna of backflow billabongs in the region. Other than that, our monitoring programs in the South Alligator River and Magela Ck continue.

NT Museum

The only major field trip **Graham Brown** has been on was to Oenpelli to collect specimens for the Museum's new natural history gallery. He admits that he could not help himself and some tiphiids were accidentally caught in the process. **Alice Wells, Laurence Mound** and **Jon Martin** visited the museum in December.

Graham and **Colin Wilson** (amongst others) represented their respective government bodies for a tour of the Jabiluka mine site in Kakadu National Park.

Glenn BELLIS
Regional Councillor

S.E. QUEENSLAND

Queensland Institute of Medical Research Mosquito Control Laboratory, Brisbane.

The 7th Arbovirus Research in Australia/2nd Mosquito Control Association of Australia conference was held on the Gold Coast between 25-29 November. The conference program was diverse covering topical issues such as mosquito

control, Ross River virus, Dengue and Japanese Encephalitis. Many international scientists from the United States and Asia attended the conference and thoroughly enjoyed the Gold Coast hospitality and lively scientific debate. **Tonya Watson** from the QIMR was awarded the student prize for the best conference presentation. Tonya's talk was entitled 'Is *Aedes notoscriptus* an urban vector of Ross River and Barmah Forest viruses in southeastern Queensland?'

Department of Natural Resources
Alan Fletcher Research Station, Sherwood.

CTPM summer student, **Shay Simpson** is working with **Toni Withers**, testing the influence of rearing on different larval host-plants on the oviposition preference of *Epiblema strenuana*, a biocontrol agent of parthenium weed. **Fe Ambatali** is currently host-testing *Carmenta ithacae*, another potenial biological control agent of parthenium.

John Cronin has left the department after 21 years of service at AFRS to become a science teacher. He and entomologist **Michael Day** have released more *Charidotis pygmaea* on creeping lantana around Monto and Brisbane districts and continue to monitor previous release sites.

Austin McLennan has been appointed as technician to the Prickly Acacia biocontrol project to assist **Bill Palmer** in the host testing and rearing of possible agents. Natural Resources are in the process of appointing a field entomologist in South Africa to work on the collecting and testing of potential agents for both Prickly Acacia and possibly Mother of Millions in the future.

Graham Donnelly has released the mesquite seed beetle *Algarobius prosopis* in mesquite infestations at Hughendon and Quilpie. He also visited mesquite infestations at McKinleay and Cloncurry to prepare for the release of another mesquite seed beetle, *A. bottimeri.*

CRC for Tropical Pest Management

As many of you will be aware, the Centre's bid for renewal was not successful. It has been made clear by the Minister for Science and Technology, the Hon. **Peter McGauran**, that this decision is not a reflection of the research capabilities of the Centre - "there are many elements in addition to the quality of the research that need to come together to make a successful application".

So where do we go from here and what does this mean for pest management research in Australia? The first point to make is that the Centre has funding to take it through to at least the end of June 1998, so it is business as usual for some time to come. This, together with other funding opportunities, gives us time to radically rethink the options for joint venture activity in the pest management area. We have learnt very valuable lessons over the past five years and have developed approaches, tools and skills that can provide the basis for an even more effective means of working together with industry.

In this positive frame of mind, we have already had a meeting of representatives from the four participant organisations and industry and have set up a working group to explore strategies for the future. There are a number of options open to us, including a range of funding sources and institutional arrangements. If you would like further information on CTPM activities, please contact **Cathy Simpson** (t: 07 3365 1876, f: 07 3365 1855, email: cathy@ctpm.uq.edu.au).

The CTPM is preparing for a visit by Dr **Ed Rajotte** who is Associate Professor of Entomology at Pennsylvania State University USA. He is involved in extension, research, teaching and is IPM Coordinator for the College. Responsible for developing and maintaining an extension program in support of the tree fruit industry within Pennsylvania, Ed's work focusses on a vertically integrated approach to solving important problems for the fruit industries of Pennsylvania. He and the late **Elaine Brough** shared the recognition of the importance of social phenomena in pest management systems. Dr Rajotte will give an evening seminar on "IPM in the United States" while at the Centre.

Queensland Museum

Congratulations to **Susan Evans** who was awarded first class honours last December for her thesis on the systematics and biology of some Australian Syrphine hoverflies. The entomology section wrapped up its survey of the boggomosses with two successful trips to the Taroom district in November and early January. We are currently snowed under pinning, labelling, identifying and registering about 7000 specimens. Several notable insects were taken including five specimens of a remarkable dung beetle, Australia's and possibly the world's only wingless species of *Onthophagus*. This beetle was previously known only by the unique holotype in the Paris museum collected in

"Queensland" in the late 1800's.

University of Queensland
Department of Entomology

David Yeates spent most of November in Africa collecting Diptera in a project funded by the NSF_PEET program and Schlinger Foundation. Collecting was done around Cape Town, the Cederburg Ranges, Namaqualand and the Kalahari and Namib Deserts. **David Yeates, Shaun Winterton, Chris Lambkin, Brian Weiss** and **Jodie Christensen** made a collecting trip to the Cooloola National Park last October. The vegetation of the park is a mix of rainforest, dry sclerophyll forest and open heathland, in a sand soil. They reported great success, especially in the Diptera collected.

Jodie Christensen joins the Entomology Department for a position curating the mosquito collection donated to the Departments' insect collection by **Pat Marks**.

Dave Walter, along with a couple others, have added mites to the Tree of Life web page. You can find the mite section of the Tree of Life at:

http://phylogeny.arizona.edu/tree/eukaryotes/animals/arthropoda/arachnida/acari/acari.html

Heather Proctor will be visiting the entomology department from Jan 29th. **Dianna Liu** has moved to Australia from Iowa, and is working on a sorghum midge project with **Gordon Gordh**.

Des Foley has submitted his PhD thesis titled "Malaria and the molecular systematics of the *Anopheles punctulatus* group of mosquitoes. **Brian Heterick** has submitted his PhD thesis titled "A revision of the Australian fauna of the myrmicine genus *Monomorium* (Hymenoptera: Formicidae)". **Manthana Milne** has submitted her PhD thesis titled "Species status, host-plant relationships and predatory behaviour of *Frankliniella schultzei*"

Des Foley and **Joan Bryan** attended the Second Australian Mosquito Control Association and 7th Arbovirus conference at Surfers Paradise. Joan presented a paper on communities' role in vector-borne disease control, which outlined some of the findings of research using focus group discussions to determine what people know about mosquitoes and the diseases they carry.

Lertluk Ngernsiri has started a PhD with **David Merritt.** Her title is "Genes specifying neuronal identity in the nervous system of the *Drosophila* embryo". **Chris Lambkin** will start her PhD in March under the supervision of **David Yeates.** She'll be working on the bombyliid genus *Exoprosopa*. **Chris Palmer** will be undertaking an honours project with **David Yeates** as supervisor. Chris is a graduate of Central Queensland University, and he will be trying to place the genus *Exeretoneura* (Diptera: Orthorrhapha) into a family.

Chris Lambkin, Susan Evans and **Bronwyn Goodwin** completed their honours in November 1996. They all gained first-class results - congratulations!

David Schlipalius has completed his postgraduate diploma and is now working with **Dave Merritt**.

Toni WITHERS
Regional Councillor

Bureau of Sugar Experiment Stations

Peter Allsopp, Les Robertson and **John Rogers** (CTPM) are busy organising the third Brisbane Workshop on Soil Invertebrates, to be held in July. Overseas speakers will include **David Dent** (CABI), who will speak on IPM for soil pests, and **Dan Potter** (University of Kentucky), who has wide experience in the biology and control of scarab pests of turfgrass. Registration brochures are available from Peter, Les or John.

Peter Allsopp will venture to Mexico in early February to attend an entomology workshop sponsored by the International Society of Sugar Cane Technologists. He will also freeze on a side visit to **Dan Potter** in snowy Kentucky.

Graeme Leslie, head of entomology at the South African Sugar Experiment Station, visited BSES entomologists at Bundaberg, Tully and Meringa during November. White grubs have suddenly reared their heads in the South African sugar industry. There appear to be numerous parallels between the situations in the two countries, with multiple species, different life histories and different behaviours.

Department of Primary Industries, Indooroopilly

John Donaldson attended the Council of Heads of Australian Entomological Collections meeting in Canberra in late November. He then spent a week travelling in the southeast of NSW before returning to Canberra to participate in the Whiteflies Identification Course. The course was informative but more importantly it allowed contacts to be developed with the experts who conducted it. On his return to Brisbane John resumed his duties of supervising a cast of thousands identifying fruit

flies from about 1400 traps that are placed in areas outside the quarantine area, and thrips from sticky traps on properties exporting to Victoria to ensure freedom from western flower thrips.

Bob Corcoran reports that research based on comparative studies of the response to heat of papaya fruit fly and Queensland fruit fly was accepted by Japanese authorities which allowed the export market for Kensington mangoes into Japan to be reopened in time for the current mango season. This lucrative market was closed when papaya fruit fly was first detected in north Queensland as existing disinfestation treatments had not been proven against this previously exotic species. This is a major success for the disinfestation group.

Dick Drew, Annice LLoyd and **Eddie Hamacek** attended a workshop in Cairns on 9-10 December to plan future developments in all aspects of the papaya fruit fly eradication programme. **Dave Hancock**, formerly an entomologist in ACIAR fruit fly projects at Indooroopilly and recently appointed Principal Entomologist in Cairns, was also at the workshop.

Dr **S. Rajendran** from the Central Food Technology Research Institute in Mysore undertook a three week visit to Australia as part of an ACIAR project on phosphine resistance in grain insects. He worked mostly at Indooroopilly with the stored products group but also visited other grain research centres and grain growing areas in Queensland and New South Wales. It is expected that his research in India, together with research at Indooroopilly and in China, will lead to a better understanding of the level of phosphine resistance in the region, and hence the level of threat posed to Australian industry.

Greg Daglish and **Merv Bengston** each spent several weeks in Indonesia on an ACIAR stored product project. Greg initiated a study of residual grain insect populations in empty warehouses. The study involves weekly monitoring of insects and determining the impact of different structural treatments on these populations. Merv continued the study and also evaluated a number of phosphine fumigations of bagged rice.

Dick Drew resigned from the DPI in late January after 35 years of distinguished service. His fruit fly expertise will not be lost as he has accepted a personal research chair in the Faculty of Environmental Science at Griffith University. He will continue his fruit fly research from there.

Department of Primary Industries, Toowoomba

Bernie Franzmann poached **Adam Hardy** back from **Iain Kay** and so Adam is now working in Toowoomba on Bernie's new project investigating new sources of sorghum midge resistance in sorghum. Meanwhile, back in Bundaberg, Iain struggles on alone. Bernie also is trying to navigate a silverleaf whitefly project through the difficult shoals of the horticultural funding bodies.

Department of Primary Industries, Applethorpe

Katy Lynch, an Arts-Science student at the University of Queensland, accepted a QDPI studentship under the supervision of **Frank Page.** Her project is to study the efficacy of the release of the coccinellid *Cryptolaemus montrouzieri* for the control of tuber mealybug, *Pseudococcus affinis*, on apples. The first release in mid December resulted in successful establishment so it will be interesting to see what impact they have.

A pretty, golden strain of codling moth has been trapped in low numbers at Stanthorpe this season. **Stephen Sexton** of Biocontrol advised that it has also been found in New Zealand and that a researcher had maintained a colony of the strain.

Iain KAY
Regional Councillor

NORTH QUEENSLAND

Department of Public Health
& Tropical Medicine
James Cook University of North Queensland

Deon Canyon attended the 7th Symposium on Arbovirus Research in Australia/2nd Australian Mosquito Control Conference on the Gold Coast, and presented two papers on (1) mosquito predation by geckoes and (2) a novel insecticide delivery tool for use in the urban environment. **Jeffrey Hii** continued to provide AusAID consultancy services to Viet Nam from 18 Nov to 21 December 1996. With the assistance of a health education specialist (**Joanne Robinson** ex ACITHN, Brisbane) based in Hanoi he facilitated two Training of Trainers courses at IMPE Hanoi and IMPE Qui Nhon on malaria vector control and monitoring for the provincial entomologists. Twenty eight malaria entomologists from IMPE Hanoi, IMPE Qui Nhon and the provinces of Binh Dinh, Quang Nam, Da Nang, Quang Binh, Yen Bai and Nghe An attended this course. After being assailed by the cold wintry winds and the wet monsoons,

he spent the last week in Dakr Lak district, central highlands of Vietnam where he assisted in reviewing and drawing up guidelines for entomological monitoring in preparation for a WHO/TDR funded study on the comparison of the efficacy of house spraying and impregnated bed nets using pyrethroid insecticides. Local malaria staff received hands on training on the use of a Magellan Global Positioning Device for mapping houses and setting up a GIS-database. On his way to Viet Nam, **Jeffrey Hii** detoured to Sabah, East Malaysia where he joined **Ralph Harbach** (The Natural History Museum, UK) and **Catherine Walton** (Department of Evolutionary Biology, University of Leeds, UK) for a week's collection of *Anopheles balabacensis, leucosphyrus, pujutensis, hackeri* and *macarthurii*. This joint collaboration on Genetic Diversity of malaria mosquitoes in southeast Asia is currently funded by the Wellcome Trust in UK.

Jeffrey HII
Townsville

SOUTH AUSTRALIA

Department of Crop Protection University of Adelaide

The Department was placed under a microscope in November when it was reviewed by a team led by **Paul Wellings** (CSIRO Entomology). All are eagerly awaiting the final report of the review committee.

Rick Roush presented a paper on insecticide resistance management at the Entomological Society of America annual meeting in Louisville, Kentucky in December. **Keith Hopper** (USDA Newark, Delaware) and **Ebbe Nielson** (CSIRO Entomology) visited Rick in January. Their trip to the sunny beaches of Kangaroo Island was rewarded with specimens of a rarely collected sun moth. Keith presented several seminars including one on his models of population establishment.

Scott Field submitted his PhD thesis entitled "Patch exploitation and defence in the egg parasitoid *Trissolcus basalis*" and will take up the prestigious **Golda Meir** Postdoctoral Fellowship in Rehovot, Israel in mid-February.

Jo Kent has completed her honours on parasitoids of *Plutella xylostella* in **Andy Austin**'s lab and has gone trekking to celebrate her achievements.

Sheridan Purvis has completed her honours on patch time allocation in *Cotesia rubecula* in **Mike Keller**'s lab. Sheridan is currently working with Mike, but will earn bigger bickies when she moves to Wynn's winery in the Coonawarra in February.

Mike Keller presented a lecture on biological control in gardens at the Australian Rose Conference in late October. In December, Mike served on a review panel at Marburg, Queensland for an ACIAR project on management of cabbage moth that is being undertaken under the leadership of **Peter Deuter** (DPI Gatton, Queensland) and **Liu Shu-sheng** (Zhejiang Agricultural Univ., China).

Susan Whitney (University of Delaware) presented a seminar to the Department on the ecology of subterranean termites in November.

Department of Zoology, University of Adelaide

Shelley Barker has recently retired from the Zoology Department of the University of Adelaide but will be continuing with research on the Buprestidae in the Entomology Section of the South Australian Museum. In particular, he will continue work on the colour plates for the revision of *Castiarina* for which the text and most of the plates have been completed.

Of interest to collectors was the report from **Peter Hudson** of the Zoology Department of Adelaide University who recently found large numbers of buprestids on the 'shoreline' of salt lakes in Western Australia and South Australia, including species that are quite rare in collections.

Apparently they get washed into the lakes after summer thunderstorms and finish up on the lee shore. The deposits of dead beetles were reported to be up to several feet deep in some localities and included many families other than buprestids.

South Australian Research & Development Institute

Greg Baker and **Rick Roush** attended the Third International Workshop on The Management of Diamondback Moth, held in Kuala Lumpur in late October, thanks to the financial support of SA Brussels sprouts growers. Rick presented an invited paper titled "Insecticide Resistance in Diamondback Moth: Quo Vadis?"

Lawrence Mound and **Alice Wells** visited **Greg Baker, Gabriella Caon** and **Mike Keller** in January to discuss Western flower thrips and thrips damage in citrus.

Two staff have left recently to take up research posts in industry. **Bill Frost** has joined Agrisearch

Services Australia and **Jörg Kitt** is now working for Crop Care.

Dennis Hopkins attended a workshop on European wasp at the Keith Turnbull Research Institute in November. It allowed a small group of researchers to update each other on the current situation with wasps in the both Australia and New Zealand. **Darryl Jackman,** a former honour's student from the Department of Crop Protection, joined SARDI in early January on a six-month contract to work with Dennis to further investigate the feasibility of using insecticide baits to suppress foraging wasp numbers in situations where the nest cannot be located.

CSIRO Entomology

The lab continues to be dominated by research on biological control of Mediterranean snails and the management of earthworms. The sarcophagid flies that were imported from Europe as potential biological control agents of the snails have been tested for their host-specificity in quarantine against a wide range of native Australian snails. One of the parasites has yet to attack anything other than its pest host and is therefore looking quite promising for release. Other parasites have parasitised the occasional native species and therefore are more problematic. The inevitable dilemma arises - a mediterranean fly might attack a native snail in a glass jar in quarantine but will it really pose a serious risk to that snail hiding away in a temperate rain forest in the wild? We're very much hamstrung by major shortfalls in our biological knowledge of the animals in question.

The collection of the native snails has meant significant travel for **Penny Carter** and **Geoff Baker**, but this has been helped by tapping into the efforts of CSIRO Double Helix Club members around the country who have provided extra specimens. Other recent snail work has involved analysing sampling data taken for pest populations over the last 12 years. The data suggest that pest problems in spring are worst following wet autumns. There is therefore scope for predicting "bad" years ahead of time.

The earthworm work has mostly revolved around completing field trials on the role of selected species in increasing pasture and crop production and incorporating lime to offset soil acidity. Geoff, **Vicki Barrett** and **Chris Obst** took a part in trials in W.A. late in 1996 exploring these topics. A new grant (LWRRDC) will start in 1997 which aims to develop mass-production and inoculation methods for one particularly beneficial, but patchily distributed, species, *Aporrectodea longa*. Smaller projects have included work on flatworm predation of earthworms with **Teri Terrace** (CSIRO Soils) and seasonal activity of native species (some native earthworms are surprisingly most active on the soil surface in sclerophyllous woodlands in summer). **Tamara Flavel** is currently working as a summer student in the lab for the CRC for Soil & Land Management. She is investigating the effects of earthworms on seed germination and the effects of potting mixes and liquid fertilisers, produced from earthworm farms, on crop growth.

Geoff Baker travelled overseas a couple of times in the latter half of 1996, mainly to attend conferences in Ireland and the U.K. (soil zoology and mollusc control) and to Hawaii to discuss a possible collaborative project on the control of golden apple snails. These snails are major pests of rice throughout S.E. Asia.

Visitors to the lab included **Sultan Ismail** from Madras (on an Australian International Education Fellowship - related to his earthworm work) and **Phil Colman** (Australian Museum, Sydney) who was here to conduct a survey of snails contaminating citrus exports from the Riverland for the Citrus Board.

Mike KELLER and Gary TAYLOR
Regional Councillors

VICTORIA

Keith Turnbull Research Institute, Department of Natural Resources and Environment

David McLaren, **Raelene Kwong** and **Franz Mahr** attended the CRC for Weed Management Systems St John's wort workshop in Canberra on 13-14 November. **Paul Jupp** (CSIRO Entomology) and Franz Mahr will soon be making assessments of St John's wort mite effects at two long term impact study sites in NSW. Both sites are looking very promising. **Paul Lutschini**, a NSW weeds officer, has been spraying these sites every two weeks for the last three years to exclude the mite and it looks as if it will be clearly demonstrated that the mite is very effective.

John Weiss has been seconded as research officer to the Parliamentary Natural Resources and Environment Committee Pest Plants enquiry and will be assisting with the preparation of the

agricultural weeds section of the enquiry report. John reports excellent progress with the plume moth, *Pterophorus spilodactylus*, a biological control agent for horehound. Over 80% of release sites in NSW, SA and Vic are showing heavy damage. At one of the earliest release sites at Swifts Creek, Vic, the insect has spread 250 m since February 1994 and has jumped 40 m across a road and fenceline. The proportion of growing shoots infested has climbed to an average of 90% over a 200 m transect. A student, **John Stoner**, will research the horehound clearwing moth, *Chamaesphecia mysiniformis*, with **John Weiss** over the summer. They will attempt to synchronise its life cycle to southern hemisphere conditions, and if successful, will initiate mass-rearing.

Part of a shipment of the bitou tip moth, *Comostolopsis germana*, from the Capetown area, South Africa, expected in late November is to be supplied to **Craig Clarke**, CRC for Weed Management Systems PhD student at Adelaide University. The insect is well established in NSW and it is hoped that the Capetown biotype will establish just as effectively in southern Australia. A fresh shipment of the bitou tortoise beetle, *Cassida* sp., has also been received from Africa. It will provide research material for our CRC summer student. A mixed shipment of bitou seed flies, *Mesoclanis magnipalpis* and *M. dubia*, again from southern Africa, will be used in quarantine host specificity testing and should enable the final testing of *magnipalpis*, a species suitable for southern Australian release. **Robin Adair** is working towards the importation of the leaf buckle mite, *Aceria neseri*, another *Chrysanthemoides* biocontrol agent.

Schools involved in our Ragwort Schools Program have been breeding the cinnabar moth, *Tyria jacobaeae* as an educational project. **Karen Green** and **Raelene Kwong** have organised release days, which the students and teachers attend, at which the reared insects are put out on infestations of ragwort in the field. In a program funded by the Dairy Research and Development Corporation, the ragwort crown boring moth, *Cochylis atricapitana*, is to be released at 50 additional sites this season.

Bob Smith and **Peter Hodge** of NSW Agriculture and **Nicole Freeman** of KTRI made the first Australian releases of the broom bruchid, *Bruchidius villosus*, on the property "Krowarree" near Braidwood, NSW, on 5-6 November. The insect material was sourced from colleagues at Manaaki Whenua Landcare Research New Zealand. A culture was retained for laboratory breeding and mass rearing. Nicole has established a lab colony of the broom twig miner, *Lecucoptera spartifoliella*, from cocoons collected in NSW and has released it at ten sites in Victoria including severe infestations in the Alpine National Park.

Ian Faithfull has been conducting releases of the Moroccan clearwing moth, *Chamaesphecia doryliformis*, a biocontrol agent for docks (*Rumex* spp.) around the state since late October and 23 sites have been set up.

Tim Woodburn CSIRO Entomology, Canberra, visited in mid January for a meeting of CRC for Weed Management Systems technical coordinators and education officers. Tim is leader of the CRC's program for "delivering biological control".

In September, **David McLaren** attended the IOBC conference on "Technology Transfer in Biological Control: from Research to Practice" to tell researchers from around the world about successful biocontrol technologies being undertaken in Australia. A paper was presented in collaboration with **David Briese** from CSIRO on how the community has become involved in the distribution and evaluation of biological control agents in Australia. David also presented a poster on biological control of blackberry and ragwort in Australia. David later travelled to Spain where he spent two weeks observing insects attacking ragwort and Paterson's curse and collecting the ragwort crown boring moth, *Cochylis atricapitana* for shipment back to Australia.

Kelvyn Dunn of the Institute for Horticultural Development visits the Institute regularly to take care of **Peter Williams'** western flower thrips cultures in the quarantine building.

Institute for Horticultural Development, Agriculture Victoria, Knoxfield

During December and January **Peter Williams** has been carrying out collaborative fumigation experiments with colleagues from VUT (**Murugappan Muhunthan** and **Graham Thorpe**) and CSIRO Division of Entomology (**Gaye Weller** and **Jan van S Graver**). In December Gaye and Jan visited Melbourne for work at Emerald and Gembrook and in January Peter, Muhunthan and Graham visited Robertson, NSW. Consignments of

wildflowers fumigated with the phosphine formulation Phosfume have been successfully exported to Japan from Gembrook. Documentation is being prepared to register Phosfume for wildflower fumigation.

The book "Pests of Pome and Stone Fruit and their Predators and Parasites - a pocket guide", (Malipatil, Medhurst, Bates and Williams) was launched during the RPMC field day at Ardmona on 26 November. Copies are selling like hot cakes.

There has been a successful launch of IPM Research- to- Practice Viticulture workshops at Melbourne, Griffith, Naracoorte, Wangaratta, McLaren Vale and Nuriootpa (**DeAnn Glenn, Mark Smith & Rob Sward**). Workshops are structured to deliver hands-on training by key researchers and industry reps., at the same time allowing viticulturists and growers to feed back management concerns to researchers. Gauging by the industry response the concept and design of the workshops is a great success.

DeAnn Glenn, who is developing the IPM workshops in viticulture attended the *Phylloxera* Workshop in Rutherglen on 23 January.

Nancy Endersby and **Peter Ridland** attended the 'Third international workshop on the management of diamondback moth and other crucifer pests' held in Kuala Lumpur, Malaysia in October. The Australian contingent were stunned when the meeting voted to hold the fourth workshop in Australia (2001). Nancy stayed on for a few days to visit the Malaysian Agricultural Research and Development Institute (MARDI).

Institute for Integrated Agricultural Development (IIAD), Agriculture Victoria

Garry McDonald has moved from Plant Sciences and Biotechnology (La Trobe University) to join the management team at Agriculture Victoria's Institute for Integrated Agricultural Development at Rutherglen. He is managing the livestock and crop production section at the Institute, but will be establishing an entomological program as well. Before taking up this position, Garry attended the XX Congress of Entomology in Florence (August) and went on to northern America to do a study tour focussing on host plant resistance programs for pests of canola. Entomology is not new to Rutherglen; the Institute has an established program on grapevine phylloxera involving the molecular biotyping of phylloxera (**Angela Corrie**) and insect dispersal (position being filled).

CSIRO Forest Products Laboratory.

Things are fairly quiet now (mid January) on the entomological front. **John French** (foundation AES member) has retired, but continues to be seen occasionally as he has a small contract to continue some of the more commercially important work. John has also taken a visitor role at RMIT's Key Centre for Human Nutrition & Toxicology where he intends to pursue some more of the more evasive termite behavioural questions with **Vicky Haritos**.

Meanwhile, John's technician, **Berhan Ahmed** used the holiday break to get married. Celebrations included fireworks, doves, a cast of hundreds and traditional Eritrean dance. A good time was had by all. See John for photos.

Honours Students fared well in '96, two Melbourne University students exploring termite ecology with one from RMIT photography using time-lapse imaging to show feeding behaviour under laboratory assay conditions.

Late '96 saw great elation among the research staff of Granitgard Pty Ltd based at FPL, with the signing of their collaborative research agreement. This milestone was achieved 2.5 years after the collaborative research program began, and just in time to catch two significant events: (i) the revalidation of Granitgard's National Accreditation under the Building Code of Australia which now covers new buildings over the whole continent and (ii), the completion of laboratory testing and subsequent exit of the research staff. Granitgard's R&D Manager, **Don Ewart**, will now be based at the company's head office in East Melbourne and continuing field testing at sites across Australia. Don's 'Termite Pages' have also moved and now reside at http://www.labyrinth.net.au/~dewart .

Nancy ENDERSBY
and Robyn COY
Regional Councillors

WESTERN AUSTRALIA

Agriculture WA, South Perth

Rumours are rife as to the impending relocation of the Entomology section. It is one of the largest intact groups of entomology researchers in Australia that are State government employed. Following the trend of Agriculture/Primary Industry

departments in other States, the agency has been instructed that the metropolitan site of Agriculture WA (AgWA) has to be vacated by 1998. The staff hope that relocation will take them to one of the universities, but negotiations are still at an early stage. Meanwhile they continue to soldier on amidst the rumours and prospect of an uncertain future.

Debbie Thackray (AgWA, CLIMA), whilst visiting her family in the UK in December, attended a meeting at Rothamsted Research Station convened by **Richard Harrington** on the latest aphid and virus research in cereal crops. She also met with insecticide resistance expert **Alan Devonshire** to discuss resistance in *Myzus persicae* populations in WA, and lupin agronomist **George Milford** to talk about aphid vectored viruses in lupins. A third day spent in York at the brand new MAFF Central Science Laboratory left her consumed with jealousy after visiting the sparkling new growth room and glasshouse facilities! Whilst there she caught up with **Keith Walters** and **Derek Morgan** working on Barley Yellow Dwarf Virus, and **Ian Barker** to discuss virus transmission by Western Flower Thrips and control strategies in the UK.

John van Schagen attended a European wasp workshop at the KTRI in Melbourne in November where the past, present and future of Australian and New Zealand European wasp research was discussed.

Andras Szito has been appointed the new curator of the AgWA insect reference collection, and can now truly indulge his passion for beetles and other insects.

Ian Dadour, now a consultant to AgWA and a UWA appointee, can still be seen in the corridors of South Perth. His new facilities at the UWA campus will be completed by the end of January.

Françoise Berlandier is relieved to hear that her MSc thesis (through the Zoology Dept., UWA) on lupin resistance to aphids has finally been passed. She hopes to continue working on lupin resistance, and will start by screening lupin genetic material produced by AgWA plant breeders.

Agriculture WA, regional

Amanda Annells has taken up her new position with AgWA in the Kimberley region of WA. She is stationed at Kununurra and is working on pests of cotton.

Tony Postle is stationed at Broome and spends most of his time on the NAQS (Northern Australian Quarantine Service) project, and some of it on a biocontrol project for the weed *Parkinsonia*. He reports that he enjoys the tropical climate of Broome, but bemoans the lack of squash courts in the N-W town!

Zoology Department, University of WA

Geoff Allen, an ARC Fellow at UWA, was successful in obtaining a ARC large grant for the next three years (1997-1999) to investigate interactions between bushcricket calling behaviour and the nocturnal sound-orientating parasitic tachinid fly, *Homotrixa alleni*. He anticipates many further nights of field research in the south-west to investigate the role of song structure and fly hearing on host preferences in this bizarre host-parasitoid system.

Rod Hale is into the 2nd year of his PhD and is working on gryllacridid crickets. He finds that very little work appears to have been carried out on the abilities of orthopterans as small-brain navigators. His current focus is on the nesting behaviour of individuals and their ability to locate and identify their nest in both the laboratory and field situations.

Maydianne Andrade, Cornell University PhD student, has escaped the icy clutches of winter in New York and is visiting her WA field site for the 3rd time to study male mating strategies and sexual cannibalism in redback spiders. She is examining male movements among female webs by surveying webs nightly and marking males to allow individual recognition. She manipulates the system by releasing males of various sizes and ages within site and seeing whether they successfully find females and mate. The main objective is to estimate the cost of sexual cannibalism for a male by assessing the likelihood that a male who mates, but is not cannibalised, will re-mate.

Win Bailey is still on sabbatical, but has returned to WA after a lengthy stint overseas that included visits to **Larry Field** in New Zealand, **John Alcock** in Arizona, USA and Florence, Italy.

Murdoch University

Jane Latchford and **Richard Segal** from the Marine and Freshwater Research Laboratory, Murdoch University, attended the Mosquito Control Association of Australia's conference on the Gold Coast in November. Jane presented results from

a collaborative study with the Health Department of WA and the Water and Rivers Commission of WA into an environmentally sensitive method of mosquito control in saltmarsh ecosystems called runnelling. The technique is used effectively in Queensland and is presently being tested in WA.

Curtin University

After the Christmas quiescence, life is starting to pick up in the entomology laboratory, with the anticipated arrival of two honours and three new PhD students. In the meantime, **Jonathan Majer** is being kept busy with the co-editing of the forthcoming book "Monitoring and Measuring Biological Diversity: Standard Methods for Ants". **Brian Heterick** has now returned from Queensland and is reconstituting his diminished resources by assisting with the sorting and identification of ants from various environmental surveys.

W.A. Museum

In October, **Terry Houston** returned to work after 3 months long-service leave (some of it spent in Peru) and immediately embarked on a hectic schedule of field-work. Pollinators of coppercups (*Pileanthus* spp., family Myrtaceae) formed the focus of an October fieldtrip and spoon-winged lacewings (*Chasmoptera* spp.) were his principal quarry during further trips in November and December.

Arachnologist **Mark Harvey** and entomologist **Jonathan Majer** (Curtin University) have been appointed to serve for three years on the Department of Conservation and Land Management's Threatened Species Scientific Committee. They will advise on the listing of endangered species in W.A. and will represent the world of the little animals.

Francoise BERLANDIER
Regional Councillor

FASTS NEWS

(Federation of Australian Scientific and Technological Societies)

NOVEMBER

FASTS has written to the Minister for Education Senator **Amanda Vanstone** to ask her when the review of the Higher Education system will begin. The Review was announced on August 9 when the Minister made a pre-Budget statement, ostensibly to clear up a confusing situation in the Higher Education sector. Since then the situation has worsened. The sector is simultaneously grappling with savage funding cuts, the proposed differential HECS allowance, and mounting industrial trouble over claimed salary increases. Confusion and uncertainty reign. All notions of strategic planning seem to have gone out the window, to be replaced by a market-driven "reform" of the Higher Education system. Science departments have been closed or amalgamated as university administrators scramble to balance their budgets, and FASTS is concerned that these actions do not prejudice the gains of the past two decades.

Clearly, the universities need a sense of purpose and direction. They need to know what the universities are expected to do and what sort of funding is available to them. Science is particularly vulnerable in this climate of uncertainty. Science departments can be expensive to run, and the benefits lie beyond the time-horizon of most of the people who make policy decisions. It's time to set a clear and steady path for Higher Education, and it's time for Minister Vanstone to announce the terms of reference for her Review.

FASTS supports Reef fishing experiment

A series of experiments planned for the Great Barrier Reef to establish best management practices came under threat from the Australian Democrats in Parliament last month. FASTS was contacted by the Australian Marine Sciences Association (AMSA) when the Democrats issued an media release using terms "rip the heart out","science gone feral", "absurd experiments" and "plundered". FASTS helped AMSA counter the Democrat release, and contacted politicians in all parties. ALP Science spokesperson **Martyn Evans** spoke directly to the scientists involved, and took up the issue within the Labor Party. The ALP eventually agreed to support the research. The experiment has now been accepted by Parliament, but FASTS has followed up the issue with **Cheryl Kernot**. I have written to her to express concern at the approach the Democrats took, and offering to act as a source of expert scientific reference on other S&T matters.

FASTS Council

Both Minister **Peter McGauran** and Shadow Minister **Martyn Evans** sparked vigorous discussion when they addressed Council on

November 20. Representatives of Member Societies were able to question them directly on a whole range of issues. The meeting was surprised to hear the Minister's perception that basic research was well-funded and thriving in Australia. The Board is preparing a submission to acquaint him with the real picture and the real importance of basic research. Position papers are being prepared by the following Board and Executive members, and Members with a particular interest should contact these people directly:

Basic research support:
Chris Powell - cpowell@geol.uwa.edu.au
Patricia Angus - pma@rschp1.anu.edu.au
HECS:
John Humble - John.Humble@phys.utas.edu.au
Jan Thomas - JanThomas@VUT.edu.au
S&T and maths and science teaching:
Jan Thomas - JanThomas@VUT.edu.au
Jaan Oitmaa - otja@newt.phys.unsw.edu.au
University restructuring:
Chris Powell - cpowell@geol.uwa.edu.au
Patricia Angus - pma@rschp1.anu.edu.au
Marine exclusive economic zone:
Peter Rothlisberg -
Peter.Rothlisberg@qld.ml.csiro.au
Chemical deficit:
Graham Johnston - grahamj@extro.ucc.su.oz.au
Career paths:
John Humble - John.Humble@phys.utas.edu.au
Jaan Oitmaa - otja@newt.phys.unsw.edu.au
Emerging diseases:
Dick Groot Obbink - dickgo@med.su.oz.au
University-industry collaboration and R&D funding:
Graham Johnston - grahamj@extro.ucc.su.oz.au
Peter Cullen - cullen@science.canberra.edu.au

Peter Cullen new President-elect

I am delighted to announce that Professor **Peter Cullen**, Director of the CRC for Freshwater Ecology and Professor of Resource and Environmental Science at the University of Canberra, has agreed to serve as President-elect of FASTS. He will become President in November 1997. Peter Cullen has been an outstanding advocate of the problems facing Australia as the driest inhabited continent, and has worked tirelessly to convey the concerns of the scientific world to Parliament and the public. Former President Professor **Graham Johnston** finishes his term with the special thanks of scientists and technologists across Australia. His great contributions helped to revitalise FASTS and to build effective organisational and communication structures.

I would like to welcome Board newcomers Dr **Peter Rothlisberg**, Professor **Jaan Oitmaa** and Professor **Snow Barlow**; and to thank retiring Treasurer **Marion Burgess** and Board members **Barry Fox, Ron Macdonald** and **Jason Middleton** for their work.

Chief scientist

John Stocker is an admirable person to fill the role of Chief Scientist and we congratulate him on his appointment. I have arranged to meet him this week. However, FASTS raised two concerns in a media release following the announcement. The first is that he will only work in the role one day a week, which seems hardly enough to fill this important and sensitive position as well as to chair ASTEC.

He will continue to work for the consultancy group Foursight and for Pratt Industries; and the issue of potential conflict of interest is one for the Government to address rather than ignore. I believe Dr Stocker's wide experience will serve Australia well.

FASTS Mathematics and science education forum

The FASTS Forum in Canberra in November brought together 80 teachers, academics and industry people concerned about the looming crisis in maths and science education. Australia expects a shortage in trained school teachers before the turn of the century. FASTS Board member **Jan Thomas** organised this successful Forum, and said that although neither Minister Vanstone nor Kemp was able to attend, they have been receiving very clear messages from the subsequent media coverage! (President Clinton's visit was head-on competition for the time of the Ministers.)

Ideas for PMSEC

Member Societies are invited to suggest ideas FASTS could raise at the next PMSEC meeting scheduled for May 30 1997.

Members are also invited to suggest ideas for a special afternoon session devoted to a more entertaining aspect of science, technology or engineering. Planned to run 30 minutes, it might be a video-based presentation on highly visual

science, such as the work of the Anglo-Australian telescope, or computer graphics research.

Differential HECS for S&T degrees

FASTS Policy Chair **Ken Baldwin** and secretary **Chris Easton** made a submission to the Senate Committee on Employment Education and Training to oppose the new HECS fees. The full text is available on the FASTS' web site. HECS is currently being considered by the Senate. The Committee's Report showed that FASTS' arguments appear to have struck home, and we are hopeful that the final result will be a good one for S&T.

Budget submissions

FASTS has been invited by the Treasury Department to make a submission for next year's Budget. Last year we raised several matters, including the short supply of trained science and maths teachers in high school and the chemical deficit issue.

Careers for young scientists

FASTS is planning a high-level Forum to devise solutions and raise public awareness of an acute problem facing young research scientists in Australia today. A draft program is being discussed with groups such as the NTEU, the Academy of Science and the CRCs Association. We hope to announce firm details shortly. February 1997 is the target month.

Media

FASTS has built an active presence in the media, with articles in the Sydney Morning Herald, Campus Review, the Australian, and the Canberra Times all featuring FASTS. Please keep in mind that coverage at local levels and in your own Society's interests, are equally of great value. Policy makers read and are influenced by this constant exposure in the media.

Joe BAKER
President
FASTS

TOP TEN ISSUES FOR 1997

Dr Joe Baker, President of the Federation of Australian Scientific and Technological Societies, released the FASTS "Ten Top Policies" for 1997 on 1 January 1997 as an incentive for Governments to adopt them as New Year's Resolutions.

FASTS TOP TEN POLICIES

1. A National Vision for Australia to 2020 and beyond

FASTS urges the Government to determine a national vision for Australia's sustainable development, and to establish what science and technology is needed to support that future. This process, working through a national summit, should set broad national priorities.

2. The Differential HECS Fees and Science

FASTS recommends that the Government monitors science enrolments in universities and the impact of differential HECS fees, and takes immediate remedial action should there be any significant decline in numbers.

3. Science and Mathematics Teaching

The Government must address the decline in the quality and quantity of teachers in science and mathematics, and the lack of rigour and substance in Australia's science and mathematics curricula and teaching practices. All students are taught by appropriately qualified teachers. HECS charges for teaching education should be in the lowest bracket.

4. Encouragement of Private R&D

Funding for private R&D should be increased to internationally competitive levels. Peer-reviewed competitive grants should be used as a mechanism to distribute funds and ensure the quality of research, and the Government should address the shortage of long term venture capital by encouraging superannuation funds to invest in R&D.

5. Restructuring the Universities

Australia has too many universities to be able to offer high-quality science courses in all disciplines at all institutions. FASTS advocates a restructuring process that guarantees access to high-quality science education and research, and which may involve amalgamation or shared teaching.

6. Provision of Career Paths for Scientists

Too many young scientists face uncertain careers on short term funding. More talented

people, especially women, need to be attracted into scientific careers through better remuneration and more secure career paths, with real opportunities to obtain competitive research funding.

7. Infrastructure in Research Organisations

The Government is urged to accelerate its program of replacing worn-out equipment, libraries, computer facilities and buildings in research organisations

8. Basic Science

A higher proportion of Government funding for science should be directed to basic science, to underpin future developments in applied science.

9. The Australian Ocean Territory

Australia needs to boost its scientific exploration of the AOT in order to exploit marine and seabed resources in a sustainable manner. Government should ensure adequate funding is directed the research agencies in this area, including the provision of a scientific marine fleet.

10. Protection of Intellectual Property

The protection of Australian intellectual property is as vital as its discovery and development. Patent costs should be an allowable R&D expenditure.

Toss GASCOIGNE
Executive Director
FASTS
PO Box 218
Deakin West, ACT 2601
Email: fasts@anu.edu.au

DECEMBER/JANUARY

On January 7, the Government declared 1997 to be "The Year for Youth in Science."

In making what is largely a symbolic declaration (there was no new money for initiatives in this area!), Minister **Peter McGauran** said that Australia needed more scientists, technologists and engineers, and not more doctors, lawyers and accountants. FASTS believes the most useful step the Government could take to boost youth interest in science is to improve the quantity of properly qualified science and mathematics teachers, and to modernise science laboratories in schools. The evidence of difficulties in teaching is mounting. Reports have pointed out the weaknesses - a huge projected shortfall of teachers, the dissatisfaction of the existing workforce, lower numbers entering the discipline areas.

The Preston Report by the College of Deans of Education confirms anecdotal reports of the situation in Australian schools and universities:

* that too many school students are being taught mathematics and science subjects by teachers not qualified to teach these subjects
* that the universities are not producing enough teachers with qualifications in areas such as mathematics, physics and chemistry
* that the pool of graduates in science and mathematics available to go on to gain teaching qualifications is growing smaller in number and weaker in quality

Australia needs to boost the supply of good science and mathematics teachers to inspire students to enter these courses at university. All sorts of career opportunities open up to people with qualifications in science and mathematics. The corollary is that all sorts of difficulties lie ahead for the nation which fails to educate the next generation to cope with the challenges of the future.

Careers Forum

FASTS and the National Tertiary Education Union are organising a one day Forum to examine the question of career opportunities for younger research scientists. It will be at the National Press Club in Canberra on Wednesday March 19, and features a nationally-televised lunch time address by Professor **Ian Lowe** of Griffith University. The Minister for Science and Technology and his shadow counterparts have been invited to speak, along with young scientists and leading figures from industry, research and the universities. The Forum goes all day, and the registration fee includes a seat at the Press Club lunch. This is an opportunity to devise constructive solutions to a problem which threatens the next generation of Australia's research scientists.

The West Review of Higher Education

FASTS' Secretary Dr **Chris Easton**, of the Research School of Chemistry at the ANU, is coordinating FASTS' submission to the Review. (ph 06-279 8201, email easton@rsc.anu.edu.au) The advertisement calling for submissions will appear on Feb 19, and submissions have to be in

by April 4. Review Secretary is Ian Creagh (ph. (06) 240 7344, fax (06) 240 8854, email ian.creagh@deetya.gov.au

The Factor (f) Scheme

I have asked the Prime Minister to extend the life of the Factor (f) Scheme. Under this Scheme, Government incentives for companies to undertake R&D are compensated for by lower-cost pharmaceuticals to the Australian public. It has led to strong growth, significant private investment in infrastructure and research, and the development of a world-leading pharmaceutical industry in Australia. FASTS supports Factor (f) as an example of the way Government can encourage industry to undertake R&D, and believes that the Government could well consider how the concept could be extended to other scientific and technological areas. The Factor (f) scheme is a clear example of good science combined with good business. It would be to the detriment of Australia's interests if this
scheme were to be curtailed or abandoned.

Meeting with Chief Scientist, Professor John Stocker

Members of the Board and Executive of FASTS had a profitable half day meeting with **John Stocker** and **Eric James** from DIST on 24 January. Much of the discussion revolved about FASTS "Ten Top" issues for 1997, and the Review of S&T that the Chief Scientist will carry out. It is interesting that the Chief Scientist's terms of reference nominate FASTS (along with the academies of science) as an organisation he must consult.

"Ten Top" policy issues for 1997

Release of the "Ten Top" issues sparked much discussion this year, particularly number five which began "Australia has too many universities..." Lots of people reached for the phone and email before finishing the sentence: "...to be able to offer high quality science courses in all disciplines at all institutions." Since then I have expanded on this sentence, to say in a Sydney Morning Herald article that in any reorganisation of the universities, the views of academic scientists working at the coalface must be prominent.

Media

There has been a lot of interest in science lately, with HECS, the shortage of teachers, cuts to funding, the Nobel Prize winner becoming "Australian of the Year," and editorials on science in several papers. The interest is spreading, and it is good to see "non-scientists" recognising the impact of a society inadequate in S&T. Member Societies can contribute to this interest by drawing matters of interest to the attention of the press. Often these ideas are contained in your newsletters.

An idea from the Statistical Society Newsletter faxed to The Age newspaper made a good page three story on the economies of buying cold petrol. This sort of coverage can lift the profile of a Society and underline the relevance of science to everyday life.

FASTS recent coverage includes appearances on national ABC radio and Channel 7 TV

Joe BAKER
President
FASTS

ELECTRONIC NEWS

Faunal Biodiversity of Southern Africa

The Transvaal Museum, Pretoria, South Africa and the Department of Zoology and Entomology, University of Pretoria have begun an initiative to account for the faunal biodiversity of southern Africa.

We need to have our first list of taxa reviewed by as many interested animal systematists with expertise in southern African taxa as possible.

Please visit the list at the following URL:
http://www-tm.up.ac.za/biodlist/biodlist.htm

Illinois Databases

The following database summaries have just been posted on the web site of Illinois State Museum:

Odonata database
http://www.museum.state.il.us/research/entomology/od_db.html

Non-Illinois odonata collection
http://www.museum.state.il.us/research/entomology/od_outofstate.html

Illinois Dragonfly checklist
http://www.museum.state.il.us/research/entomolo

gy/df1list.html

Illinois Damselfly checklist
http://www.museum.state.il.us/research/entomology/df2list.html

Illinois Lepidoptera database, selected families
http://www.museum.state.il.us/research/entomology/leps_db.html

COMING EVENTS

AUSTRALIAN ENTOMOLOGICAL SOCIETY
1997 Conference and 28th AGM
28th September - 3rd October 1997
The University of Melbourne

The 1997 Annual Scientific Conference of the Australian Entomological Society will be held at Melbourne University 28 September to 3 October 1997. Details are now available.

Contact:
Nancy Endersby
Institute for Horticultural Development
Agriculture Victoria
Private Bag 15
South Eastern Mail Centre VIC 3176
AUSTRALIA
Telephone: (03) 9210 9222
Facsimile: (03) 9800 3521
E-mail: endersbyn@knoxy.agvic gov au

ADVANCE NOTICE

Sixth Australasian Applied Entomology Research Conference
"Pest Management - Future Challenges"
29 September - 2 October 1998
in conjunction with
the 1998 Australian Entomological Society 29th AGM and Scientific Conference
26 - 29 September 1998
The University of Queensland
Brisbane, AUSTRALIA

The CRC for Tropical Pest Management will host the next Australasian Applied Entomology Research Conference (AAERC) at The University of Queensland from 29 September - 2 October 1998. The AAERC will be held in conjunction with the 1998 Australian Entomological Society Conference and AGM (AESC), which will be held from 26 - 29 September 1998.

The AAERC theme will be "Pest Management - Future Challenges". Session topics and invited speakers will be announced in the registration brochure to be distributed in the middle of this year.

Registration fee for the AAERC will be about $350, including conference attendance, proceedings, field trip, conference dinner, welcoming reception, morning and afternoon teas and lunches. Combined registrations and fees for both conferences will be available.

Details for the AES Conference will be announced later this year.

If you wish to be placed on the mailing lists for either or both conferences, copy and complete the following form and send it to:

Sally Brown
ICTE Conferences
The University of Queensland
Brisbane QLD 4072 AUSTRALIA
ph: (+61 7) 3365 6360
fax: (+61 7) 3365 7099
email: sally.brown@mailbox.uq.edu.au

For further details watch the CTPM web page (http://www.ctpm.uq.edu.au)

6th Australasian Applied Entomology Research Conference
and
29th AES Scientific Conference 1998

Please send me further details for (tick either or both boxes):

( ) Sixth Australasian Applied Entomology Research Conference

( ) Australian Entomological Society 1998 Conference and 29th AGM

Family name: . . . . . .

Preferred first name: . . . . . .

Title: Dr Mrs Ms Mr Prof

Organisation: . . . . . .

. . . . . .

Address: . . . . . .

. . . . . .

. . . . . Postcode: . . . . . .

Phone: . . . . . .

Fax: . . . . . .

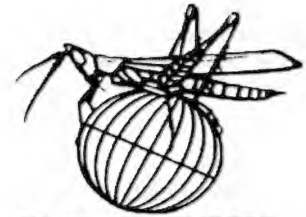
Email: . . . . . .

Send to:
ICTE Conferences (Sally Brown)
The University of Queensland
Brisbane QLD 4072
AUSTRALIA

Joint Conference of the Society of Australian Systematic Biologists and the Australian Systematic Botany Society
The University of Adelaide
29th September to 3rd October 1997.

The conference will comprise of four special symposia : computing in systematics, east-west biogeography, the interface between systematics and ecology, and molecular systematics.

For details, join the Society of Australian Systematic Biologists (see details *Myrmecia* **??**: ??-??) by emailing Mike Crisp at ANU (Mike.Crisp@anu.edu.au).



Orthopterists' Society International Conference
Cairns
26-30 October 1997

Details: *Myrmecia* **32**(4): 53

Informative brochure from **Dr. D.C.F. Rentz,**
CSIRO Division of Entomology,
GPO Box 1700,
Canberra, ACT, 2601,
Australia,
Email: daver@ento.csiro.au.

ANIC TRAINING COURSE

Thrips Identification Course
21-25 April 1997

A five-day course on the biology and identification of thrips will primarily familiarise participants with basic methods of collecting, slide preparation and identification. The course will also

provide an introduction to thrips biology, trapping for pest management and DNA techniques for studying variation within and between species. Course Fee: $1,000

This course will be held at the Division of Entomology in Canberra. Course fees do not include food and accommodation. Reasonably priced accommodation can be arranged at the participant's request.

Information from: Graham Crompton,
ANIC Collection Manager
CSIRO Division of Entomology
GPO Box 1700
CANBERRA ACT 2601, Australia
Internet: grahamc@ento.csiro.au
Fax: (06) 246 4264

THE ENTOMOLOGICAL CLUB CONFERENCE

3-5 September 1997
The University of Reading
United Kingdom
Under the auspices of
the Royal Entomological Society
INSECTS AND BIRDS

This is believed to be the first time a conference has focussed on the manifold interactions between insects and birds. These include:

The effects of either taxon on the population dynamics of the other, and the conservation implications
Insects as food for birds
Anting behaviour
Birds as food for ectoparasitic insects
Insect pest control and birds

There will be papers, poster and social events. Reading is close to London and Heathrow Airport. The first circular about this conference is now available from:

Professor H.F. Van Emden
School of Plant Sciences
The University of Reading
Whiteknights
READING, Berkshire
RG6 6AS
United Kingdom
Phone: (0) 118 931 8071
Fax: (0) 118 9750 630
Email: h.f.vanemden@reading.ac.uk

PLANT PROTECTION IN A GREEN OASIS: ..... THE NEXT 50 YEARS.

50th New Zealand
Plant Protection Conference
Lincoln University
Canterbury
New Zealand
18 - 21 August 1997

The New Zealand Plant Protection Society is pleased to invite you to celebrate the **50th New Zealand Plant Protection Conference** at Lincoln University in August 1997. Lincoln University was the venue for the first joint conference of the Australian and New Zealand Entomological Societies in 1996 and is a picturesque campus in a rural setting 21 km from Christchurch. The University has excellent conference facilities that include the latest computer-assisted technology for presentation of papers.

The 50th Conference is an important milestone which will help to set the direction for plant protection sciences in NZ for many years to come. Plant protection is an essential component of the economic and social well-being of all countries. The Conference will highlight critical issues and options for New Zealand's primary industries, natural estate and environment, as we look to provide research that ensures a viable and successful future within the global community.

Further details and registration forms are available from:

Jan Latham
Centre for Continuing Education
PO Box 84
Lincoln University
Canterbury New Zealand
Ph: 64-3-325 2811, extn 8604
Fax: 64-3-325 3840
Email: lathamj@lincoln.ac.nz

THE COMMERCIALISATION OF TRANSGENIC CROPS

Risk, Benefit and Trade Considerations
WORKSHOP
Canberra, Australia
11-12 March 1997

The Cooperative Research Centre for Plant

Science and the Bureau of Resource Sciences.

Details: *Myrmecia* **32**(3): 27-28.

People with an interest in participating in the workshop are invited to contact **Mark Gibbs** or **George McLean**:

Mark Gibbs: Fax: 06 2465000
Phone: 06 2465455
Email: mgibbs@pi.csiro.au

George McLean: Fax: 06 2724896
Phone: 06 2724752
Email: GDM@mailpc.brs.gov.au

Workshop Secretary:
Ms Tanya Joce
RSBS, ANU
GPO Box 475
Canberra ACT 2601
Fax: 06 2494437
Email: joce@rsbs-central.anu.edu.au

THE OTHER 99%

The Conservation and Biodiversity of Invertebrates
Australian Museum, Sydney
9-12 December 1997

Details: *Myrmecia* **32**(3): 27

Mailing address and further details:
Australian Museum
Invertebrate Biodiversity Conference
6 College St
Sydney NSW 2000
Fax: 02 9320 6050
Email: invert@amsg.Austmus.oz.au

3rd Brisbane Workshop on Soil Invertebrates
Brisbane
15-17 July 1997

Details: *Myrmecia* **32**(3): 28

For further information and registration notice

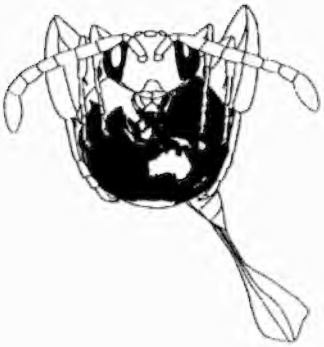
Contact: Peter Allsopp
BSES, Bundaberg
Phone: 071 593228
Fax: 071 593383

or Les Robertson
BSES, Tully
Phone: 070 681488
Fax: 070 681907

or John Rogers
CTPM, University of Queensland
Phone: 07 33651861
Fax: 07 33651855
Email: J.Rogers@ctpm.uq.edu.au

Xth INTERNATIONAL CONGRESS OF ACAROLOGY
6-10 July 1998
Canberra, Australia

Further Information:
Dr Bruce Halliday
Principal Research Scientist (Acarology)
CSIRO Division of Entomology
GPO Box 1700
CANBERRA ACT 2601
AUSTRALIA
Phone: (06) 246 4911
Fax: (06) 246 4000
Email: bruceh@ento.csiro.au



Fourth Conference of the International Society of Hymenopterists.
Canberra, AUSTRALIA
6-11 January 1999
Details: *Myrmecia* **32**(1): 28
The Conference address and contact is:
4th Conference of the International Society of Hymenopterists,
c/o CSIRO, Division of Entomology,
P.O. Box 1700
Canberra, ACT 2601
AUSTRALIA
fax: 61-6-246.4264
email: iann@ento.csiro.au.

NEW PUBLICATIONS

Nomina Insecta Nearctica: A Checklist of the Insects of North America. Vol 3

Volume 3 of "Nomina Insecta Nearctica: A Checklist of the Insects of North America" has been published and is available. This volume contains the Diptera, Lepidoptera, and Siphonaptera. The Siphonaptera were compiled by Robert Lewis of Iowa State University. The volume is lay-flat perfect bound with 1143 pages. This is by far the largest volume in the series. The price of volume 3 is $89.95 (US).

The last volume (volume 4) (Non-holometabolous orders) is well underway and hopefully will be ready in late April or early May 1997. Several authors are contributing their groups to this volume. The programming for the database application of the CD-ROM is progressing although a date for the CD-ROM cannot be given just yet.

For more information and a brochure:
Mail:
Entomological Information Services
P.O. Box 4350
Rockville, Maryland 20849-4350 USA
Email: eis@ix.netcom.com
WWW: http://www.idsonline.com/eis/nomina.htm

NOTICES

NSW Threatened Species Conservation Act
WANTED: INSECT NOMINATIONS!

Under the new NSW Threatened Species Conservation Act, insects and other invertebrates are at last officially animals! Eligibility for threatened species status protection has been extended to the whole of the animal kingdom. This represents a great opportunity for insect conservation in NSW.

Endangered or vulnerable insect species, populations and even whole ecological communities can be nominated for listing under the Act. Once listed, the National Parks and Wildlife Service is obliged to undertake measures to ameliorate threats to existence. Nominations are considered, on merit, by a Scientific Committee. The Australian Entomological Society is represented on the Scientific Committee by **Robin Gunning**.

Already, three insect species have been placed on the endangered list. They are *Synemon plana* (Golden Sun Moth), *Paralucia spinosa* (Bathurst Copper Butterfly) and *Dryococelus australis* (Lord Howe Island Phasmid). However, there are many other rare insect and invertebrate species, populations and communities in NSW, which face extinction, due to various threats.

In order to protect our insect biodiversity, the Scientific Committee urgently needs nominations from you, Australia's entomologists. Nomination forms and assistance in preparing nominations can be obtained from:

Robin Gunning
Tamworth Centre for Crop Improvement
RMB 944 Calala Lane
TAMWORTH NSW 2340
Ph (067) 631128
Fax (067) 631222

THE AUSTRALIAN ENTOMOLOGICAL SOCIETY INC.

FORM OF NOMINATION FOR MEMBERSHIP

To be returned to:
Dr D.E. Walter, AES Secretary, c/o Dept. of Entomology
University of Queensland, QLD 4072

We the undersigned

Proposer: . . . . . (print name here) . . . . . (signature)

Seconder: . . . . . (print name here) . . . . . (signature)

being financial members of the Society, propose the following for membership of The Australian Entomological Society Inc.:

Title . . Initials . . Given Name . . . . . Family Name . . . . . .

of (Address): . . . . . .

. . . . . .

Tel: . . . . . Fax: . . . . . .

Email: . . . . . Degrees, etc: . . . . . .

Occupation or Appointment: . . . . . .

Interests, experience, and publications in entomology for publication in the News Bulletin *Myrmecia* (please attach brief resumé):

I accept nomination and undertake if elected to abide by the rules of the Society, and to pay annual subscriptions by the date prescribed.

Signature: . . . . . **Date:** . . . . . .

For **1996**, new student/retired members - $25.00; new full members - $55.00. **Payment with nomination required.** (NB. These rates only apply for new memberships.

. . . . . .

(EXECUTIVE USE ONLY)

Nom. received: . . . . . Nom. considered at meeting: . . . . . .

Payment received: . . . . . Elected at meeting: . . . . . .

Membership type: . . . . . Applicant advised: . . . . . .

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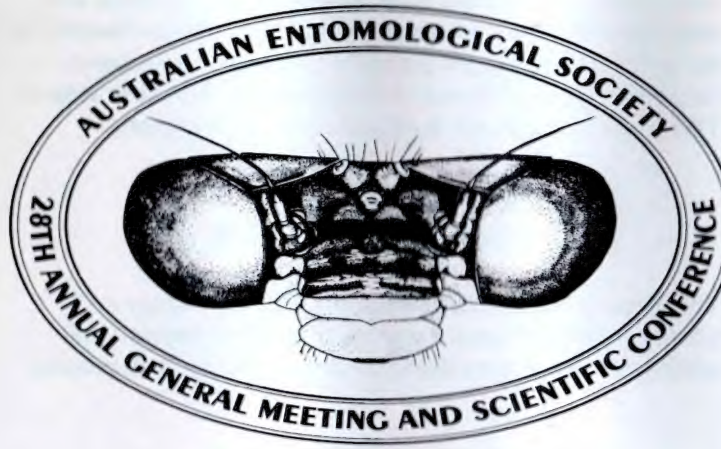

'ENTOMOLOGY - LOOKING AHEAD'

28TH ANNUAL GENERAL MEETING AND SCIENTIFIC CONFERENCE

The University of Melbourne
Victoria, Australia

28 September - 3 October 1997

QANTAS
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CONFERENCE LOGO

The logo for the Melbourne Conference is the eyes of *Hemiphlebia mirabilis*, a tiny metallic-green damselfly which is the only member of the superfamily Hemiphlebioidea. The species was known originally only from a restricted site at Alexandra, Victoria and was considered a Victorian endemic. It was feared to be extinct, but extant populations have now been recorded from Victoria, Tasmania and Flinders Island. The logo was drawn by Catherine Symington.

THE CONFERENCE

The theme of the Conference is 'Entomology - Looking Ahead' and a series of invited papers will address future directions of entomology in Australia.

SCIENTIFIC SESSIONS

Invited speakers will initiate discussion of future aspects of some key areas. We are seeking contributed papers and posters in the following topic areas:

- Entomology in private industry
- Quantitative genetics
- Exotic incursions - current and future challenges
- Aquatic entomology
- Conservation and non pest management
- Population and community ecology
- Integrated pest management
- Novel pest control concepts
- General biology/behaviour/physiology
- Taxonomy

Both insect and non-insect invertebrate papers will be welcomed.

VENUE AND ACCOMMODATION

The Conference will be held at the Parkville campus of the University of Melbourne. Conference sessions will take place in the Public Lecture Theatre and Theatre B (Old Arts Building).

On-campus accommodation has been reserved at Queen's College at a cost of $40 per night for bed and breakfast. The accommodation consists of single, serviced study bedrooms, supplied with linen, towels and soap. Individual rooms are spacious, with desk, armchair, storage space and central heating. Most rooms look out onto the garden areas. Bathroom facilities and a common area with tea/coffee facilities are shared. Laundry facilities and public or private room phones are available. Please note that the College does not accept bookings of less than two nights and a single night cancellation fee is charged for cancellations notified 24 hours in advance of cancellation.

The University of Melbourne is located 1.5 km from the central business district of Melbourne. Melbourne is a multicultural city and its diverse and vibrant cultural life is reflected in the cuisine available in restaurants and cafés throughout the city. Melbourne is also known for its elegant tree-lined boulevards and its many stretches of parkland including the Royal Botanic Gardens which are one of the finest landscaped gardens in the world. Average temperatures for Melbourne in October are 9.3 °C (minimum) and 19.5 °C (maximum).

ACCOMPANYING PERSONS PROGRAM

We are able to provide tourist information about Melbourne for accompanying persons. Please contact us if such information is required.

TRAVEL ARRANGEMENTS

We are pleased to announce Qantas has been appointed official airline for **THE AUSTRALIAN ENTOMOLOGICAL SOCIETY, 28 SEPTEMBER 1997, MELBOURNE**

As a special conference fare has been negotiated for delegates attending, we suggest you contact Qantas Groups & Conventions Reservations (details below) to avail yourself of this, or any other promotional fares which may be applicable.

A discount of 45% off the full economy airfare at the time of booking has been negotiated for this conference, subject to seat availability. Please quote **AUVIC979** or **name of conference, destination and date of conference** when making your reservation.

Qantas are proud to be a part of your conference and know you will enjoy flying with us.

The Qantas Groups and Conventions Reservations telephone numbers are:

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REGISTRATION FORM

28TH AGM AND SCIENTIFIC CONFERENCE

The University of Melbourne, 28 September - 3 October 1997

Name: ..... Title: .....

Institutional affiliation: .....

Postal Address: .....

.....

.....State.....Postcode.....

Telephone: .....

Facsimile: .....

E-mail: .....

Registration Fee:(includes Abstracts, registration pack, morning & afternoon teas, Welcoming Function, Wine and Cheese night, Annual Dinner)

Full Registration	(member)	$150	$.....
	(non member)	$170	
Day Registration		$ 50	$.....
Student Registration		$ 90	$.....
Late Registration	(member)	$160	$.....
(after 1 August 1997)	(non member)	$180	

Accommodation: Please reserve accommodation for ..... person(s) at Queen's College @ $40/night for the nights of:

28 Sep 29 Sep 30 Sep 1 Oct 2 Oct 3 Oct

Total accommodation cost $.....

Any special requirements (dietary/disability).....

.....

T-shirts with conference logo ($12.00 each):

SML.....MED.....LGE.....XL.....XXL.....

Shirt Colour..... $.....

Windcheaters with conference logo ($25.00 each):

SML.....MED.....LGE.....XL.....XXL.....

Windcheater Colour..... $.....
Mugs with conference logo: $7.00 each $.....

TOTAL AMOUNT PAYABLE **$**.....

Please make cheques payable to "The Australian Entomological Society 28th AGM"

I am/am not interested in attending the field trip (cost to be advised).

Please return this form with payment to:

Nancy Endersby
c/- Institute for Horticultural Development
Private Bag 15
South Eastern Mail Centre VIC 3176
AUSTRALIA

Enquiries: Tel.: (03) 9210 9222
Fax: (03) 9800 3521
E-mail: endersbyn@knoxy.agvic.gov.au

APPLICATION FOR SUBMISSION OF SCIENTIFIC PAPER OR POSTER

An abstract of 200 - 250 words must be submitted by 1 July 1997. The format for abstracts is TITLE (upper case), first and last names of authors (speaker underlined), authors' affiliations and text of abstract.

Abstracts should be submitted as hard copy and disk versions (Word 6.0 or ASCII file) or by E-mail (endersbyn@knoxy.agvic.gov.au)

I wish to give an **Oral presentation(20 min incl. questions)/Poster** (delete one)

Name(s) of author(s) (underline speaker):

.....

Title: .....

.....

.....

I would/would not be prepared to give a poster if the number of contributed papers is too great.

PROPOSED PROGRAM

Sunday 28 September

Registration
Welcoming Function

Monday 29 September

0730-0830	Registration
0830-0840	Opening
0840-0930	Presidential address
0930-1000	Phil Carne Prize Student talk
1030-1150	Future research, education and employment in entomology in Australia KEYNOTE SPEAKERS
1300-1630	Contributed papers grouped by topics
1630-1730	AES Council meeting
1730-1830	Wine & Cheese

Tuesday 30 September

0730-0830	Registration
0830-1200	Concurrent sessions - Contributed papers grouped by topics
1300-1500	Poster session
1500-1630	Workshops (to be announced)
1630	AGM

Wednesday 1 October

0730-0830	Registration
0830-1630	Concurrent sessions - Contributed papers grouped by topics
1930	Annual Dinner

Thursday 2 October

0730-0830	Registration
0830-1430	Concurrent sessions -Contributed papers grouped by topics
1430	Closing remarks

Friday 3 October

Field trip to Yarra Valley
Departure of delegates

SOCIAL ACTIVITIES

Sunday 28th September: Welcoming Function

Monday 29th September: Wine and cheese night

Wednesday 1st October: The Annual Dinner will be held in the Dining Hall of Ormond College, University of Melbourne.

Friday 3rd October: **FIELD TRIP**
Learn about Integrated Pest Management in vineyards in the Yarra Valley. Digest your new pest management knowledge with lunch and a glass of the local fermented produce. Cost to be advised dependent on numbers.

Conference Mugs, T-Shirts, Windcheaters
Mugs with the Conference logo can be ordered @ $7.00 each. T-shirts and windcheaters are available in white print on red, blue, green or black or black print on white, pale green, pale blue. (T-shirts @ $12.00 each and windcheaters @ $25.00, S, M, L, XL, XXL).

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E.D. Edwards, Australian Entomological Magazine 16: 15–16, 1989

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P. Skou, Nota Lepidopterologica 12: 167–168, 1989

"This book sets high standards; ... The author has earned a 'well done' for ... publishing such a valuable addition to the extrememly small amount of our knowledge on geometrid life histories."
F.H. Rindge, Journal of the New York Entomological Society 97: 122–123.

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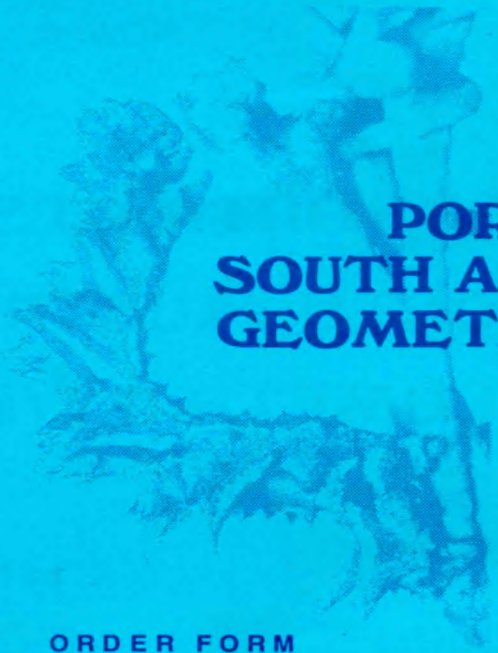

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